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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/593,060

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Holger Stenzel

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EXAMINER

THEODORE, MAGALI P

ART UNIT

PAPER NUMBER

1791

NOTIFICATION DATE

DELIVERY MODE

10/02/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docketing@mwzb.com

Office Action Summary	Application No. 10/593,060	Applicant(s) STENZEL, HOLGER	
	Examiner Magali P. Théodore	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 23 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 9/15/2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/7/2007</u> . | 6) <input type="checkbox"/> Other: _____ |

Priority

Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Germany on March 17, 2004. It is noted, however, that applicant has not filed a certified copy of the 10 2004 013 201.1 application as required by 35 U.S.C. 119(b).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by **Knaus** (US 5,190,706).

Regarding **claim 1**, Knaus teaches melting a polymer mass, dividing the melt into two streams (6:1-3), mixing additives into one stream (6:17-20), using coextrusion in one die to recombine the streams (6:49-50). The polymer mass (3:14) may starts with ethylene vinyl acetate (3:27).

Regarding **claim 2**, Knaus teaches sending each melt stream through a static mixer (figure 5:61b, 61a) after mixing the additives in (figure 5:58, 64).

Regarding **claim 9**, Knaus teaches extruding two melt streams of different colors to form a film or sheet (2:54) with at least two areas of different color intensity (title).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Knaus** as applied to claim 1 above, and further in view of **Schuchardt** (US 2002/0067656 A1).

Regarding **claim 3**, Knaus does not teach using a dynamic mixer. However, Schuchardt teaches that dynamic mixers mix faster than static mixers (0006). Therefore, it would have been obvious to one of ordinary skill in the art to use a dynamic mixer in the method taught by Knaus because Schuchardt teaches doing so to save time. *Alternatively*, it would have been obvious to one of ordinary skill in the art to substitute dynamic mixers for the static mixers taught by Knaus in order to achieve predictable results with a reasonable expectation of success.

Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Knaus** as applied to claim 1 above, and further in view of Postavnichev et al. (US 4,096,069), henceforth **Postavnichev**.

Regarding **claims 4-5**, Knaus does not teach filtering. However, Postavnichev teaches filtering extrusion melts (title, 1:11-12) in order to rid them of contaminants (1:15, 1:18). Therefore it would have been obvious to one of ordinary skill in the art to filter the melt taught by Knaus because Postavnichev teaches doing so to purify the melt. *Alternatively*, it would have been obvious to one of ordinary skill in the art to combine a filtration step with the steps taught by Knaus in order to achieve predictable results with a reasonable expectation of success.

Regarding the timing of the filtration step, the selection of any order of performing process steps is prima facie obvious in the absence of new or unexpected results. See MPEP 2144.04 IIC, In re Burhans, 154 F.2d 690, 69 USPQ 330 (CCPA 1946).

Claims 6 and 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Knaus** as applied to claim 1 above, and further in view of Esposito et al. (US 4,316,868), henceforth **Esposito**.

Regarding **claim 6**, Knaus does not teach wedge or torpedo shapes. However, Esposito teaches using a torpedo-shaped probe (2:31) and a wedge-shaped extrusion orifice (2:35-36) in order to extrude a sheet with a smooth color gradient (1:53-64). Therefore, it would have been obvious to one of ordinary skill in the art to extrude at least one of Knaus's streams through an die with a wedge-shaped or torpedo-shaped

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partial area because Esposito teaches doing so to achieve a smooth transition between the colored and colorless parts of the product. *Alternatively*, it would have been obvious to one of ordinary skill in the art to combine the use of wedge- and torpedo-shaped partial areas in the extruder in order to achieve predictable results with a reasonable expectation of success.

Regarding **claims 10-11**, Knaus teaches coextruding the two streams to form a film (sheet, 2:54, figure 4A:81) with a tinted strip (figure 4A:82). Knaus teaches a main stream (figure 5:51) and a subsidiary stream (figure 5:52).

Knaus does not teach using polyvinyl butyral. However, Esposito teaches successfully using polyvinyl butyral in a remarkably similar process of coextruding (2:52-53) a main stream and a subsidiary stream (2:44-47) to form a film with a tinted strip (1:14-15). Therefore it would have been obvious to one of ordinary skill in the art to substitute polyvinyl butyral for the starting materials taught by Knaus in order to achieve predictable results with a reasonable expectation of success.

Knaus does not teach using a pigment. However, Knaus teaches making multicolored products (title). Therefore it would have been obvious to one of ordinary skill in the art to use a pigment as an additive in Knaus's method in order to provide color.

Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knaus as applied to claim 1 above.

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Regarding **claim 7**, Knaus does not teach adding any of the claimed additives. However, Knaus teaches making multicolored products (title). Therefore it would have been obvious to one of ordinary skill in the art to use a pigment as an additive in Knaus's method in order to provide color.

Regarding **claim 8**, Knaus does not teach using any of the claimed materials as additives. However, Knaus teaches blending (3:39-40) polymers of (3:14) of EVA (ethyl vinyl acetate, 3:27), vinyl chloride (3:16-17), ethylene (3:15), propylene (3:15-16), styrene (3:21), polycarbonate (3:31) and methyl methacrylate (3:19). Therefore it would have been obvious to one of ordinary skill in the art to use PVC, PE, PP, PS, PC or PMMA as an additive because Knaus teaches combining these with EVA.

Claims 1, 6-7 and 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Esposito** in view of **Knaus**.

Regarding **claim 1**, Esposito teaches providing two melt streams (2:44-47), mixing additives into one stream (dye or pigment, 5:10-11) and using coextrusion in a single die to combine the streams (2:52-53). The polymer mass starts with polyvinyl butyral (5:66).

Esposito does not teach forming the two streams from a single polymer melt. However, Knaus teaches that beginning with a single polymer melt is an equally effective alternative (5:67-6:3, figure 5) to beginning with two separate polymer melts (figure 1). Therefore, it would have been obvious to one of ordinary skill in the art to

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substitute the use of single polymer melt for the use of two in order to achieve predictable results with an reasonable expectation of success.

Regarding **claim 6**, Esposito teaches extruding one stream through a die piece with a wedge-shaped partial area (2:35-36) and one stream through a die piece with a torpedo-shaped partial area (2:31).

Regarding **claim 7**, Esposito teaches adding a pigment (5:11).

Regarding **claim 9**, Esposito teaches extruding two melt streams of different colors to form film or sheet with at least two areas of different color intensity (windshield, 1:21-26).

Regarding **claims 10-11**, please see the rejection of claim 1. Esposito teaches a main stream and a subsidiary stream (2:43-47), the latter of which has an additive (pigment, 5:10-11).

Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Esposito** in view of **Knaus** as applied to claim 1 above, and further in view of **Schuchardt**.

Regarding **claims 2-3**, Esposito does not teach mixing. However, Esposito teaches pigmenting one stream (5:10-11), which inherently requires mixing pigment with the polymer.

Esposito does not teach using a static or dynamic mixer. However, Schuchardt teaches that dynamic mixers mix faster than static mixers (0006). Therefore, it would have been obvious to one of ordinary skill in the art to use a dynamic mixer in the

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method taught by Esposito because Schuchardt teaches doing so to save time.

Alternatively, it would have been obvious to one of ordinary skill in the art to combine the use of a dynamic mixer with the steps taught by Esposito in order to achieve predictable results with a reasonable expectation of success.

Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Esposito** in view of **Knaus** as applied to claim 1 above, and further in view of **Postavnichev**.

Regarding **claims 4-5**, Esposito does not teach filtering. However, Postavnichev teaches filtering extrusion melts (title, 1:11-12) in order to rid them of contaminants (1:15, 1:18). Therefore it would have been obvious to one of ordinary skill in the art to filter the melt taught by Esposito because Postavnichev teaches doing so to purify the melt. *Alternatively*, it would have been obvious to one of ordinary skill in the art to combine a filtration step with the steps taught by Esposito in order to achieve predictable results with a reasonable expectation of success.

Regarding the timing of the filtration step, the selection of any order of performing process steps is prima facie obvious in the absence of new or unexpected results. See MPEP 2144.04 IIC, *In re Burhans*, 154 F.2d 690, 69 USPQ 330 (CCPA 1946).

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Esposito** in view of **Knaus** as applied to claim 1 above, and further in view of **McCombie** (US 3,388,034).

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Regarding **claim 8**, Esposito does not teach any of the claimed additives.

However, Esposito is making vehicular windshields (1:17) and McCombie teaches polyvinyl butyral alone is not rigid enough to support the roof of a car (1:22-36). To fix that, McCombie teaches combining polyvinyl butyral with polycarbonate (1:36-38).

Therefore it would have been obvious to one of ordinary skill in the art to add polycarbonate to Esposito's polyvinyl butyral because McCombie teaches combining these to give the windshield adequate strength.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Magali P. Théodore whose telephone number is (571) 270-3960. The examiner can normally be reached on Monday through Friday 9:00 a.m. to 6:00 p.m. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina A. Johnson can be reached on (571) 272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Magali P. Théodore/
Examiner, Art Unit 1791

/Christina Johnson/

Supervisory Patent Examiner, Art Unit 1791